STIKINE RIVER STOCK ASSESSMENT, 1987

By

Brian Lynch

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STIKINE RIVER STOCK ASSESSMENT

1987 Final Report

Summary of Progress

1. Work Accomplishments

   A. Test fisheries were conducted near the mouth of the Stikine River from 1 July to 6 August on the South Arm, by a contracted fisherman from Wrangell, and from 29 June to 3 August on the North Arm, by ADF&G personnel. On the South Arm up to three nets were fished at three separate sites, 10 hours per day for two days each week. In the North Arm as many sites as possible were fished approximately 8 hours per day for four days each week. Scale samples were collected from all sockeye captured in both fisheries to determine the migration peaks for the Tahltan and mainstem stocks. A minimum of 300 scales per week were required for stock composition and stock timing determination. The migration peaks near the mouth were to be compared to the peaks at the Canadian lower river commercial fishery to determine if extensive milling of mainstem stocks occurs in the commercial fishery. An ADF&G biologist was also stationed at the commercial fishery to obtain sockeye scale samples and to assist with the test fishery operations conducted by Canadian Dept. of Fisheries and Oceans.

   The lower river test fishery catches were as follows:

	Net Hours Fished	Sockeye	Chinook	Pink	Chum	Coho	Dolly Varden
S. Arm	360	19	4	242	21	0	6
N. Arm	418	29	7	169	28	0	13

   The sampler at the commercial fishery was able to obtain the target number of sockeye scales each week and collected a total of 2,294 scales between 29 June and 11 August.

   B. Assistance was given to other U.S./Canada research and management projects in various data gathering, analysis, report writing and field season preparation capacities. These projects included District 106 and 108 Drift Gill Net Monitoring, District 106 and 108 Sockeye Stock Separation, Gill Net Mesh Efficiency Evaluation, Winter Troll Fishery Sampling, and Special Troll Fishery Monitoring and Evaluation.

C. The North Arm fishery initially was planned to continue until 15 August. However, due to the extremely low catches of sockeye and coho, this portion of the project was terminated on 3 August. Neither fishery was able to obtain the 300 scales per week required for adequate statistical analysis. The low catches were due to three major factors: 1) extremely high sustained water levels (the highest on record) during the fisheries severely reduced the effectiveness of the gill nets to capture sockeye (studies in 1986 showed that an inverse relationship exists between river water level and sockeye catches), 2) the lack of adequate net sites (back eddies) in the lower river allowed fish to swim around the gill nets and avoid capture, and 3) the low inriver sockeye return to the Stikine, estimated at 35,543 fish did not provide the concentration of fish needed to obtain adequate samples.

The 1986 Stikine Sonar technical report was not completed as anticipated due to the complexity of the changes in the formulas used for the sonar count expansions and the extent of the rewrite necessary to document these changes.

2. Expenditures

See budget summaries.